PATENT USSN: 10/598,873

Atty Dkt: 032301.465

IN THE CLAIMS:

Please amend the claims as follows:

1-9. (Canceled)

- 10. (Currently amended) The process as claimed in claim 9, wherein A process for the enzymatic preparation of an amide from a nitrile, which comprises contacting a compound comprising a nitrile group with a polypeptide a host cell-transformed or transfected by the introduction of a polypucleotide selected from the group consisting of:
- (a) a polynucleotide which codes for a polypeptide having the amino acid sequence which is 90 to 100% identical to the amino acid sequences contained in the sequences SEQ ID NO: 2, 3 and or 5 or 7, 8 and 10;
- (b) encoded by a polynucleotide comprising the nucleotide sequences SEQ ID NO: $\underline{1}$ or $\underline{4}$ 1, 4, 6, 9 or nucleotide sequences complementary thereto, where the polynucleotides code for a evanide tolerant nitrile hydratase; \underline{or}
- (c) a polynucleotide comprising nucleotide sequences which correspond to the nucleotide sequences SEQ ID NO: 1, 4, 6, 9 or nucleotide sequences complementary thereto, within the scope of the degeneracy of the genetic code, where the polynucleotides code for a cyanidetolerant nitrile hydratase;
- (d) a polynucleotide comprising the nucleotide sequences SEQ ID NO: 1, 4, 6, 9 or nucleotide sequences complementary thereto, which comprise functionally neutral sense mutations, where the polynucleotides code for a cyanide tolerant nitrile hydratase;
- (e) encoded by a polynucleotide which hybridizes with the complementary sequences of nucleotide sequences SEQ ID NO: 1 or 4 1, 4, 6, 9 under stringent conditions, where stringent conditions mean washing in 5XSSC at a temperature of from 50 to 65°C, where the polynucleotides code for a cyanide tolerant nitrile hydratase
- or a vector comprising the polynucleotide, or the microorganism which produces the polypeptide, or a lysate lysates thereof, is employed.

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11. (Previously presented) The process as claimed in claim 10, wherein resting cells of the microorganism are employed.

- 12. (Currently amended) The process as claimed in elaim 9 claim 10, wherein a purified nitrile hydratase is employed the polypeptide is purified.
- 13. (Currently amended) The process as claimed in claim 9 claim 10, wherein the enzyme polypeptide is derived from microorganisms of the genus Pseudomonas.
- 14. (Currently amended) The process as claimed in claim 13, wherein the enzyme polypeptide is derived from employed microorganisms of the species Pseudomonas putida or Pseudomonas marginalis.
- 15. (Previously presented) The process as claimed in claim 14, wherein the employed microorganisms are deposited under the numbers DSM 16275 and DSM 16276.
- 16. (Currently amended) The process as claimed in elaim 9 claim 10, wherein eompounds of the compound has the general formula (I) or (II)

where

X is OH, H, alkyl, or NH2;

R is H, saturated alkyl radical having 1 to 12 C atoms, branched or unbranched,

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optionally NH2-substituted, unsaturated alkyl radicals having a double bond and 1 to 12 C atoms, branched or unbranched, cycloalkyl groups having 3 to 6 C atoms, or alkylene radicals substituted by alkylthio groups, where alkyl here corresponds to a C1 to C3 radical, and alkylene corresponds to a divalent C3 to C8 radical,

R' is H, or an alkyl having 1 to 3 C atoms,

R" is a mono- or binuclear unsatur ated ring having 6 to 12 C atoms, optionally substituted by one or two alkyl groups (C₁-C₃), Cl, Br, F, or an alkyl nitrile radical having 1 to 6 C atoms.

are converted to the corresponding amides.

- 17. (Currently amended) The process as claimed in claim 16, wherein a compound of the general formula (I) the compound is converted in the presence of hydrocyanic acid or a salt of hydrocyanic acid.
- 18. (Currently amended) The process as claimed in claim 17, wherein the conversion is carried out in the presence of an initial concentration of more than 0.5 mol% cyanide to 3 mol% cyanide, based on the nitrile compound employed.
- 19. (Currently amended) The process as claimed in elaim 9 claim 10, wherein 2-amino-4methylthiobutyronitrile is employed as nitrile the compound.
- 20. (Currently amended) The process as claimed in elaim 9 claim 10, wherein 2-hydroxy-4methylthiobutyronitrile, where appropriate present in the reaction mixture from the preparation of this nitrile, is employed as nitrile the compound.
- 21. (Currently amended) The process as claimed in elaim 9 claim 10, wherein 2-hydroxy-2methylpropionitrile is employed as nitrile the compound.

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22. (Currently amended) The process as claimed in elaim 9 claim 10, wherein the amide or the solution comprising the amide is separated from the cells of the biomass, and the amide is hydrolyzed to the corresponding acid.

- 23. (Currently amended) The process as claimed in elaim 9 claim 10, wherein the amide or the solution comprising the amide is separated from the cells of the biomass, and the amide is hydrolyzed with alkali metal or alkaline earth metal hydroxides to the salts of the corresponding carboxylic acids.
- 24. (Previously presented) The process as claimed in claim 23, wherein MHA amide is hydrolyzed with calcium hydroxide, and the calcium salt is obtained.
- 25. (Currently amended) The process as claimed in claim 9 claim 10, where wherein
- a) microorganisms the microorganism is of the genus Pseudomonas in which isolated polynucleotides which code for polypeptides having the amino acid sequences which are 90 to 100% identical to the amino acid sequences comprised in the sequences with the sequences SEQ ID NO: 2, 3, 5, 7, 8, 10, where the polypeptides have the activity of a cyanide tolerant nitrile hydratase, enhanced, in particular recombinantly overexpressed, are fermented,

b) the enzyme produced recombinantly and having nitrile hydratase activity is isolated where appropriate from these microorganisms, or a protein fraction comprising this enzyme is prepared and is fermented to obtain the polypeptide or a protein fraction comprising the polypeptide, and

e) the microorganisms according to a) or the enzyme or the fraction comprising the latter according to b) is transferred transferring the polypeptide or the protein fraction into a medium which comprises a compound comprising nitrile groups of the general formulae (I) and (II) the compound.

26. (Currently amended) The process as claimed in claim 10 claim 25, wherein compounds of the compound has the general formula (I) or (II)

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where

X is OH, H, alkyl, or NH2;

R is H, saturated alkyl radical having 1 to 12 C atoms, branched or unbranched, optionally NH_2 -substituted, unsaturated alkyl radicals having a double bond and 1 to 12 C atoms, branched or unbranched, cycloalkyl groups having 3 to 6 C atoms, or alkylene radicals substituted by alkylthio groups, where alkyl here corresponds to a C_1 to C_3 radical, and alkylene corresponds to a divalent C_3 to C_8 radical,

R' is H, or an alkyl having 1 to 3 C atoms,

R" is a mono- or binuclear unsaturated ring having 6 to 12 C atoms, optionally substituted by one or two alkyl groups (C₁-C₃), Cl, Br, F, or an alkyl nitrile radical having 1 to 6 C atoms, are converted to the corresponding amides.

27-28. (Canceled)